

## Knowledge Organisers

### 1<sup>st</sup> Summer Term

Art/DT

Computing

French

Geography

History

PE

PSHE

RE

Science

**Lapwings – Year 5**

# Knowledge Organiser – Moving Toys – DT – Year 5

## Key Vocabulary:

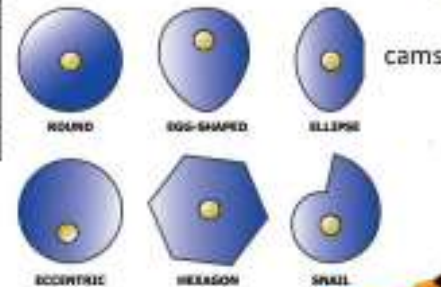
Pulley	A grooved wheel over which a drive belt can run.
Gear	A wheel with teeth around its circumference.
Axle	A rod or spindle (either fixed or rotating) passing through the centre of a wheel or group of wheels.
Frame structure	The fitting together of pieces to give a structure support and shape.
Reinforce	To strengthen or support (an object or substance), especially with additional material.
Join	To link or connect two parts together.
Innovation	The process of creating a new method, idea, product, etc.
User	The person who will use the new product.
Purpose	The reason for which something is done or created or for which something exists.
Design brief	A document for a <i>design</i> project developed by a person or team. They outline the details of the project including any the function, aesthetics, timing and budget.
Crank	A part of an axle or shaft bent out at right angle used to create movement.
Cam	Devices which can convert round motion into a straight line motion.

## Key Knowledge:

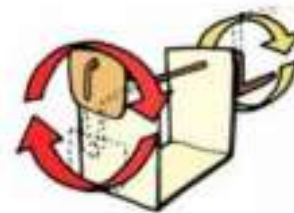
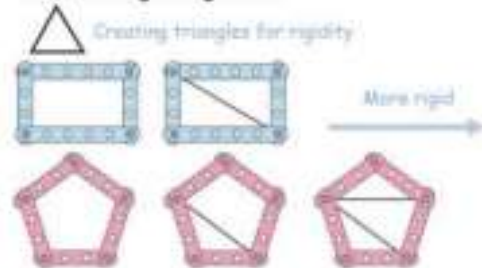
I can explore the shape, patterns and key feature of animals when sketching.
I know why prototypes are used.
I understand how different mechanisms, involving cranks and cams, create different movement.
I know how triangulation strengthens a structure.

### Gears

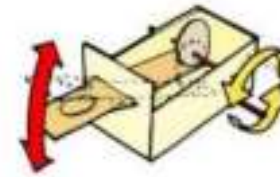
- Gears are toothed wheels that lock together and turn one another.
- The wheels are usually different sizes so that one gear speeds up to slow down the next gear. Gears are also used to change the direction of movement.



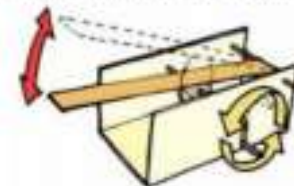
### Understanding triangulation



a simple crank mechanism for chewing the head (not shown) is fixed, the lower jaw moves



a simple cam and lever mechanism for gnawing the lower jaw (not shown) is fixed, the rest of head moves



a simple cam and lever mechanism for rearing the lower jaw (not shown) is fixed, the rest of head moves



a simple crank and slider mechanism for lolling the head (not shown) is fixed, the tongue moves in and out



## Knowledge Organiser - Computing – Spreadsheets – Year 5

Key Vocabulary	Definition
<b>Average</b>	The result of comparing two or more values.
<b>Copy and Paste</b>	A way to copy information from the screen into the computer's memory and paste it elsewhere without re-typing.
<b>Columns</b>	Vertical reference points for the cells in a spreadsheet.
<b>Cells</b>	An individual section of a spreadsheet grid. It contains data or calculations.
<b>Charts</b>	Use this button to create a variety of graph types for the data in the spreadsheet.
<b>Equals Tool</b>	Tests whether the entered calculation in the cells to the left of the tool has the correct answer in the cell to the right of the tool.
<b>Formula</b>	Type into the formula bar to create a formula in a cell, this will calculate the value for the cells based upon the value of other cells in the spreadsheet.
<b>Formula Wizard</b>	The wizard guides you in creating a variety of formulae for a cell such as calculations, totals, averages, minimum and maximum for the selected cells.
<b>Move Cell Tool</b>	This tool makes a cell's contents moveable by drag-and-drop methods.
<b>Rows</b>	Vertical reference points for the cells in a spreadsheet.
<b>Spreadsheet</b>	A computer program that represents information in a grid of rows and columns. Any cell in the grid may contain either data or a formula that describes the value to be inserted based on the values in other cells.
<b>Timer</b>	When placed in the spreadsheet, click the timer to adds 1 to the value of the cell to its right every second until it is clicked again.

### Key Knowledge

- I know how to copy and paste within a spreadsheet.
- I know how to add a formula to a cell to make a calculation in that cell.
- I know how to use a spreadsheet to show and answer questions.



## Knowledge Organiser - Computing – Hardware Investigators – Year 5

Key Vocabulary	Definition
<b>Motherboard</b>	A printed circuit board containing the main parts of a computer or other device, with connectors for other circuit boards to be slotted into.
<b>CPU</b>	The part of a computer in which operations are controlled.
<b>RAM</b>	Allows programs to store information to help the computer run more quickly.
<b>Graphics Card</b>	A printed circuit board that controls the output to a display screen.
<b>Network Card</b>	An electronic device that connects a computer to a computer network.
<b>Monitor</b>	A screen which displays an image generated by a computer.
<b>Speakers</b>	A device for letting you hear sounds generated by the computer.
<b>Keyboard and Mouse</b>	External devices that allows input.

### Key Learning

- I know the names of the different parts that make up a computer
- I know the function of different parts that make up a computer.



Motherboard



RAM



CPU



Graphics Card



Network Card



Monitor



Speakers



Keyboard and Mouse

# Knowledge Organiser Year 5 French Unit 5: En vacances

Key Language	English
Où vas-tu en vacances?	<i>Where are you going on holiday?</i>
Je vais .....	<i>I'm going ...</i>
à la campagne	<i>to the countryside</i>
à la montagne	<i>to the mountains</i>
au bord de la mer	<i>to the seaside</i>
au camping	<i>to a campsite</i>
au parc d'attractions	<i>to a theme park</i>
à Hunstanton / à Paris etc en France / en Espagne etc	<i>to Hunstanton / to Paris to France/to Spain</i>
J'aime ça / Je n'aime pas ça.	<i>I like that/I don't like that.</i>
J'adore ça / Je déteste ça.	<i>I love that/I hate that</i>
Qu'est-ce que tu vas faire?	<i>What are you going to do?</i>
Je vais...	<i>I'm going ...</i>
faire du bateau	<i>to go boating</i>
faire du ski	<i>to go skiing</i>
nager	<i>to swim</i>
faire du sport	<i>to do sport</i>
faire du vélo	<i>to go biking</i>
voir mes grand-parents	<i>to see my grandparents</i>
faire les manèges	<i>to go on the fair-ground rides</i>



Je vais au camping  
à la montagne.



Je vais au bord de la mer  
à Hunstanton.



Je vais faire du vélo.



Je vais faire les manèges.

## KEY QUESTIONS

Où vas-tu en vacances?

*Where are you going on holiday?*

Qu'est-ce que tu vas faire en vacances?

*What are you going to do on holiday?*

Tu aimes ça?

*Do you like that?*

## Year 5 - Knowledge Organiser – Geography – New Zealand

Key Vocabulary	Definition
<b>Southern Hemisphere</b>	The half of Earth that is south of the Equator.
<b>Volcano</b>	A crater or vent through which lava, rock fragments and gases erupt from the Earth's crust.
<b>Geyser</b>	A hot spring in which water boils, sending a tall column of water and steam into the air
<b>Tectonic plate</b>	A massive slab of rock that moves over a liquid mantle
<b>Active</b>	A volcano that has erupted in the last 10,000 years. (Can be dormant or erupting).
<b>Dormant</b>	A volcano that is active but not erupting at the moment
<b>Extinct</b>	Volcano that has not erupted in the last 10,000 years, OR a species that has died out and no longer exists.
<b>Predator</b>	An animal that naturally preys or hunts other animals.

Key Knowledge
I know that New Zealand is a country in the Southern Hemisphere made up of two islands.
I know New Zealand is located on a plate boundary and so has active volcanoes.
I know Maori were the first people to live in New Zealand and have their own customs and language.
I know New Zealand has many unique animals and plants.



Wellington	Geyser	All Blacks	Kiwi	Easter Island
				
Wellington has been the capital city of New Zealand since 1865	Pohutu Geyser, which erupts up to 15 times a day and shoots hot water around 30m skywards.	The New Zealand national rugby team known as the All Blacks	A native flightless bird which is the national symbol of New Zealand	The distance between Easter Island and New Zealand is 7084km,

## Knowledge Organiser - The Industrial Revolution - History - Year Five

Key Vocabulary	Definition
<b>Industrial Revolution</b>	A time of great change in Britain between 1750 to 1900
<b>Population</b>	The number of people living in a particular place
<b>Invention</b>	Something new which is created, can be an object or an idea
<b>Economy</b>	The system of how money is used within a particular country
<b>Agriculture</b>	The process of farming, including both growing and harvesting crops and raising animals, or livestock.
<b>Poverty</b>	The lack of basic human needs such as clean water, nutrition, healthcare, education and shelter
<b>Industry</b>	The process of making products by using machines and factories
<b>Mass production</b>	The manufacture of a product in large numbers and at a low cost.



Pre-industrial Britain



Post-industrial Britain

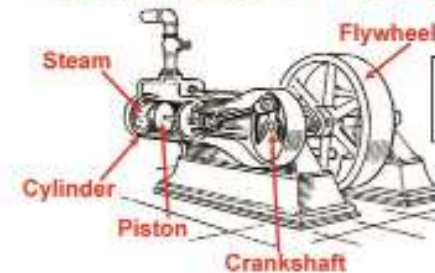
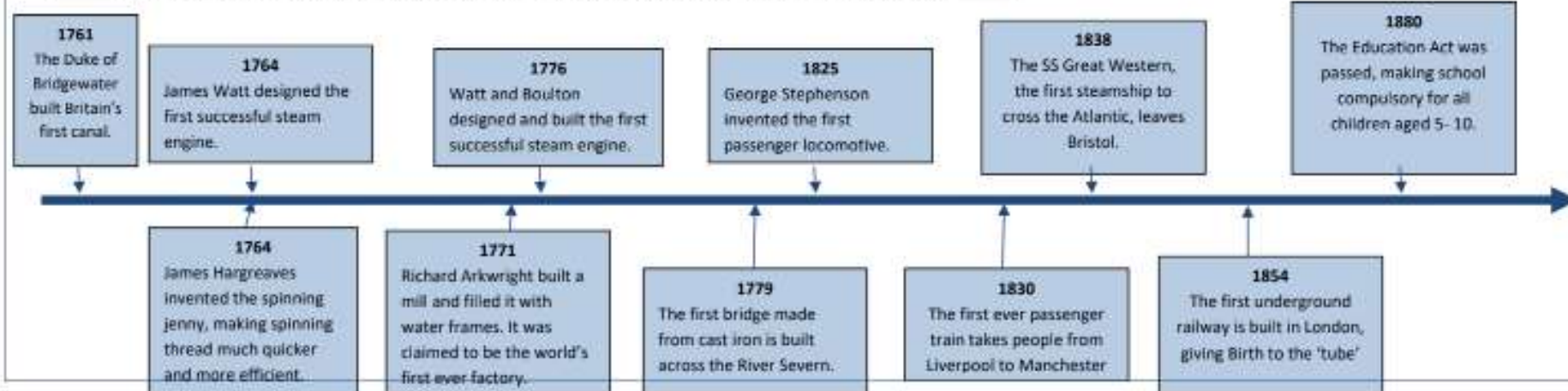


Diagram of a steam engine

Key Knowledge
I know the 'Industrial Revolution' describes the change from a society based on hand manufacturing and human or animal power, to a society based on machinery in factories.
I know the steam engine was one of the most important inventions of the industrial revolution.
I understand the how goods were transported in the Industrial Revolution.
I know industrial revolution caused cities to grow rapidly and that this was called urbanisation
I understand Victorian children played a role and had dangerous jobs during the industrial revolution.






## Knowledge Organiser – PE – OAA - Year Five

Key Vocabulary	Definition
<b>Problem Solving</b>	The process of finding solutions to difficult or complex physical tasks.
<b>Outdoor and Adventurous Activities</b>	Outdoor and Adventurous Activities present mental and physical challenges. They encourage people to work in a team, building on trust and developing skills to solve problems, either individually or as a group.
<b>Fitness</b>	The condition of being physically fit and healthy. OAA provides many opportunities for people to develop their fitness.
<b>Orienteering</b>	Orienteering involves navigating between set points by using a map. It can sometimes involve compass work and is usually done as a race. It can be done in lots of places such as woodland and school fields. It can be good for helping to improve fitness.

Skill development	
<b>Communication</b>	Understand that communication skills involve talking and listening when sharing ideas. Be able to discuss solutions to problems calmly and be prepared to adapt your ideas to make the best possible solution.
<b>Problem Solving</b>	Be open to trying many different methods in order to solve one problem. Sometimes the first way to solve it isn't always the best way. Try to think outside the box!
<b>Leadership</b>	Take on the role of the leader in different situations. You will need to use lots of different skills in order to help your team to achieve different outcomes.



Skills	
<b>Communication</b>	
<b>Problem Solving</b>	
<b>Leadership</b>	



## Knowledge Organiser – PSHE – Relationships - Year Five

### Key Vocabulary

<b>Self-esteem</b>	A feeling of being happy with your own character and abilities.
<b>Attributes</b>	To regard a quality or feature as belonging to somebody/something.
<b>Characteristics</b>	A typical feature or quality that something/somebody has.
<b>Compromise</b>	An agreement made between two people or groups in which each side gives up some of the things they want so that both sides are happy at the end.
<b>Pressure</b>	The act of trying to persuade or to force somebody to do something.
<b>Jealousy</b>	Feeling angry or unhappy because somebody you like or love is showing interest in somebody else.
<b>Bullying</b>	The use of strength or power to frighten or hurt people. This can be face to face or through the use of technology.
<b>Safety</b>	To feel safe and protected from danger or harm.

### Key Knowledge

I have an accurate picture of who I am as a person in terms of my characteristics and personal qualities
I understand how it feels to be attracted to someone and what having a boyfriend / girlfriend might mean.
I understand how to stay safe when using technology to communicate with my friends.



### Reflective questions

Ask me this...

What does friendship mean to you?

How do you know who you are talking to online?

What are good ways I can keep myself safe when using technology?

## R.E. Year 5 Summer 1 Knowledge Organiser

### Enquiry: What is the best way for a Sikh to show commitment to God?

Key vocabulary	Definition
Sikh	A person who follows the religion of Sikhism
Commitment	To promise to be loyal to someone or something
The 5 Ks	Khalsa Sikhs wear five symbols – called the five Ks, or Panj Kakka - to show their devotion to Sikhism. Kangha- comb, kirpan- sword, kara – bracelet, kachera- shorts and Kesh – uncut hair
Amrit Ceremony	The Amrit initiation ceremony involves the drinking of Amrit (sugar water stirred with a dagger) in the presence of 5 Khalsa Sikhs as well as the Guru Granth Sahib
Guru Granth Sahib	Sikh Holy Book
Gurdwara	Sikh worship place
Sewa	Helping others – could be donations of money, good or time

#### Key Knowledge

I understand the term commitment.

I know Sikh's dress in a way to show commitment to God

I know the 3 Golden rules of Sikhism and can explain what Seva means.

I can explain why it is important to Sikhs to show their commitment to God and can describe different ways they choose to do this.

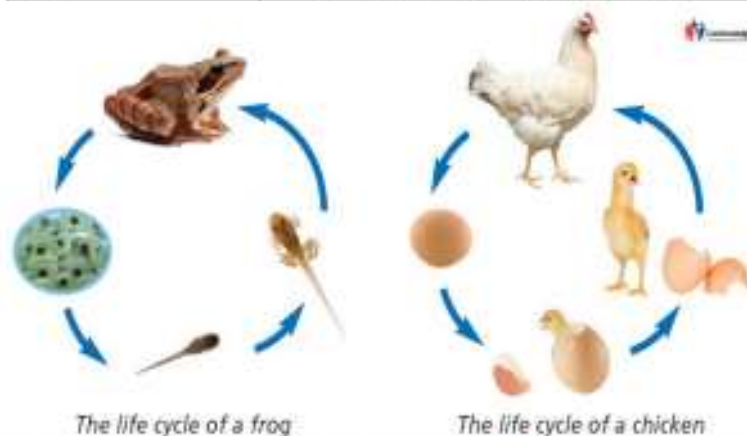
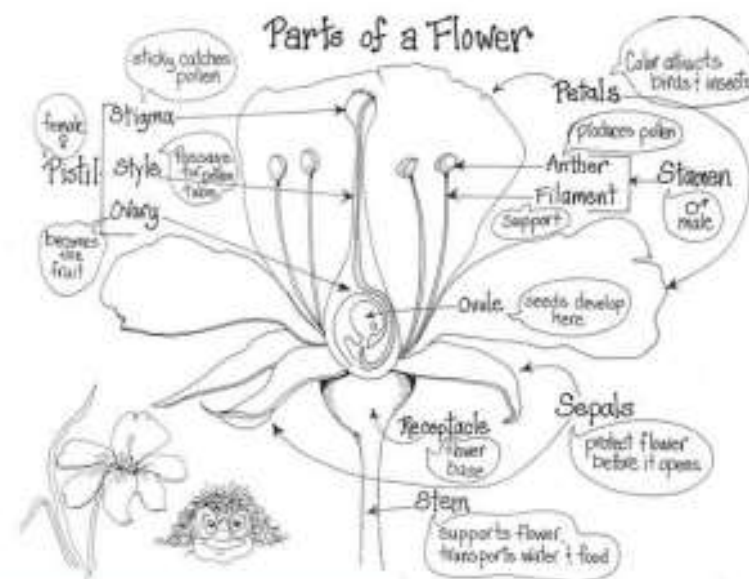
I can give my opinion on what I think Sikhs should do to show commitment to God and explain why

I know that religions can influence how people live



## Knowledge Organiser – Science – Year 5 – Life Cycles and Reproduction

Key Vocabulary	Definition
life cycle	development of an organism from birth through reproduction to death
reproduce	to make again or make a copy of
reproduction	the process of making a copy of
asexual	non-sexual reproduction
spore	seed released by a fungus
cloning	to make an exact copy of the parent
regeneration	the ability to replace lost cells or even lost body parts
gametes	male or female germ cell needed for sexual reproduction
internal fertilisation	sperm and egg join inside the body of the female parent
external fertilisation	sperm and egg join outside the bodies of the parents
embryo	a developing organism
zygote	a fertilised egg
gestation	the carrying of an embryo inside a female
monocot	a flowering plant whose seed only contains one embryonic leaf
stamen	the male reproductive organs of a plant
pistil	the female reproductive organs of a plant



Key Knowledge
I know that plants can reproduce asexually.
I know the parts of a flowering plant.
I understand seeds are dispersed by animals, humans, water, wind or the explosion of the seed pod.
I know about the life cycle and reproductive system of animals.

